

SECTION II

2003 FIRST AID RULES

Revised 4/03/2003

2003 FIRST AID CONTEST RULES

INDEX

<u>Title</u>	<u>Section II</u>	<u>Page</u>
Rules Governing the 2003 First Aid Contest		1
Materials List		4
Interpretations of Scorecard A (General Discounts, Overtime Discounts, and Procedures and Critical Skills Discounts)		5
Interpretations of Scorecard B (Artificial Ventilation/Cardiopulmonary Resuscitation).		8
 <u>Skill Sheets</u>		
Patient Assessment Trauma		11
One-Person CPR (Manikin Only)		13
Two-Rescuer CPR (No Spinal Injury - Manikin Only)		15
Two-Rescuer CPR (With Spinal Injury - Manikin Only)		17
Mouth-to-Mask Resuscitation		20
Airway Obstruction (Manikin Only)		21
Arterial/Profuse Bleeding		22
Sucking Chest Wound		23
Bandaging Open Wounds		24
Care of Fractures and Dislocations		25
Two-Person Log Roll		26

RULES GOVERNING THE 2003 NATIONAL FIRST AID CONTEST

1. Members of First Aid Teams must be bona fide employees of the mining industry. All team members and patient shall be dressed alike. Shoes need not be identical.
2. A team shall consist of three working members, one of which will be the patient. A team may use the same patient for multiple teams, but the patient used for multiple teams will not be allowed to perform CPR. The Contest Director must be notified when a patient will be used for multiple teams.
3. Trauma and artificial ventilation/cardiopulmonary resuscitation will be two (2) separate stations. All team members will be allowed at each station. The recording manikins for AV/CPR will be supplied by the teams and the printed tape will be used in part for determining discounts. At the completion of the AV/CPR problem, the taped performance will be removed from the manikin by the team member who performed AV/CPR, in the presence of a judge, and the team member will sign the tape and place his/her team number on it. The recorded tape discounts will be transferred to the AV/CPR scorecard.
4. If the problem requires a bystander, one will be provided by Contest Officials. If a bystander is available, it will either be stated in the problem or the bystander will have a card stating "bystander".
5. All procedures shall be performed as described in The U. S. Department of Labor, Mine Safety and Health Administration's official "First Aid Book Revised 1998"; the "Rules Governing the 2003 First Aid and CPR Contest; Contest Skill Sheets; and the Interpretations of the Discount Card. The entire First Aid book will be used when preparing Contest problems.
6. Each team entering the contest will draw a number to determine the order of the performance at the time of registration. Teams sharing equipment must notify the registrar upon registration.
7. Each participating team must be under guard before the start of the contest. If any team or team members receive unauthorized information concerning a contest problem, the team shall be disqualified by the Chief Judge and Final Appeals Committee.
8. No practicing will be allowed on the field before the beginning of the Contest. No First Aid Books or training material or timing devices will be permitted in the working area. A CPR test tape will be requested.

9. Contest officials will designate spaces (12 feet by 12 feet) for teams to work. A base area of an additional 3 feet X 12 feet will be used for all equipment (except manikin). All problems will be worked in the designated area which shall contain only the judges and the contesting teams.
10. Teams will be allowed to communicate only with designated officials after entering guarded area.
11. Injuries/conditions requiring treatment will be identified by cards or labels attached to the patient at or as near the location of the injury as possible on the outside of the clothing, be identified by simulated wounds, or be in the reading of the problem. Wounds that are listed in the reading of the problem shall also be placed on patient. (Exception: If the wound is on the eyelid or an impaled object in the eye, the label will NOT be placed on the eye, but in an obvious area near the eye.)

During the course of the problem, teams may be given a card(s) stating various conditions. Upon completion of treatment of these conditions, patient assessment will be resumed at the point where team left off. Other cards (which may NOT be hidden) may be placed in the working area giving information about the area. The patient will already be marked upon arrival of the team. (Shoes may already be removed and clothes loosened by the patient.)

Since spinal stabilization must be taken as outlined in Patient Assessment Trauma, spinal injuries will be stated in the reading of the problem and not marked on the patient. (Symptoms may be used.) Profuse bleeding and sucking chest wound will also be stated in the reading of the problem and may or may not be marked on the patient. (Symptoms may be used.)

12. Wording on the cards or labels will be exactly as listed in the 1998 First Aid Book, example: "3" WOUND ON BACK BETWEEN SHOULDER BLADES" not just 3" WOUND" and placed on the center of the back.
13. Lettering on the cards and/or labels will be at least 1/4-inch in height.

Example: **2-INCH WOUND ON FOREHEAD**

14. Contest officials will provide a timing device to be started by the team and a timing device for the Timekeeper. Upon entering the Contest field, the team and timekeeper will simultaneously start the timing devices.
15. Problems will be kept in unsealed envelopes, retained by the judges, and given to the team as soon as they start the clock.

16. The calculated time will be determined by Contest Officials by averaging the working time of all teams participating in the Contest (1 discount per 3 minutes overtime).
17. After stopping the clock, the team will inform the judges that the patient is ready for inspection. Team members will remain with the patient until released by the judges.
18. In the event of ties in the contest, Scorecard A (Trauma) discounts will be the first tie breaker, Scorecard B (AV/CPR) discounts will be the second tie breaker and the third tie breaker will be the Team's actual working time.
19. Appeals

Upon completion of the examination of the patient, the team shall be informed of the infractions regarding treatment, but not the number of discounts. The team has the right of verbal appeal after being informed of the infractions. If the first appeal cannot be resolved by the field judges, the team may request an appeal from the Chief Judge or Assistant Chief Judge. If a team member displays unsportsmanlike conduct, the team's appeal will not be recognized.

During the verbal appeal process, all questionable dressing(s) shall remain intact until the appeal is resolved. If any questionable dressing(s) is removed or altered by the team prior to being resolved, the appeal shall not be allowed.

Teams will have 30 minutes, after being notified to report to Final Appeals. Upon reporting to Final Appeals, the team shall have 20 minutes for reviewing the Scorecards and preparing protests. All protests shall be in writing and shall clearly state the team's comments to the discount in question, along with applicable rule and/or page number(s). All protests will be considered by the Final Appeals Committee, and a decision will be binding and final.

Under no circumstances will videotape recordings or photos be introduced as supplementary material for consideration of the appeal.

MATERIALS LIST

Teams must supply their own first aid materials. Suggested minimum materials for First Aid Teams:

- Compliment of triangular bandages (sufficient to treat injuries as outlined in First Aid Book)
- Compliment of compresses
- Adhesive compresses (Band-aid)
- Assortment of gauze
- Roller gauze
- 2 Blankets
- Scissors
- 8 Pair latex gloves
- 2 Mask/face shields or masks and goggles
- 2 Heated objects
- 2 Cold packs
- 2 Cups
- Pen and paper
- 3 Plastic bags - one gallon size
- Elevating device
- Recording manikin
- 2 Pocket masks with one-way valve
- White bag
- Compliment of splints (may be pre-padded but not assembled)
- Backboard splint appropriate for tying fractures/dislocations as outlined in the First Aid Book, including 15 ties for spinal injury (backboard splints may be preassembled and padded)
- Air splints

INTERPRETATIONS OF SCORECARD A

1. Materials other than those stated in the First Aid Book, Revised 1998 or the Minimum Materials List can not be used during the working of the contest. _____5
2. Violations of or failure to follow Rules Governing the 2003 National First Aid and CPR Contest. _____2 for each infraction
3. Protective equipment must be donned after starting the clock but prior to patient contact (gloves, masks, and eye protection - eyeglasses are acceptable). Bystanders, if used, will not be required to wear protective equipment. _____5 for each infraction
4. Gloves shall be changed if there would be contamination because of a glove tear or due to other contamination. _____2 for each infraction
5. The broken-back board splint may be preassembled and padded. Other splints may be prepped but not assembled. (Cravat bandages cannot be preassembled on the back board, except for tying padding.) _____5
6. All bandaging and padding material, except blankets and splints, shall be kept in boxes or kits until clock is started. _____10
7. When the team encounters arterial/profuse bleeding, no work other than controlling bleeding and dressing the wound shall be done until bleeding is controlled. Bleeding is controlled when the dressing for that wound is tied in place unless otherwise stated by the Judge. If the cover dressing has been started and the team member can complete that treatment, the other team member may continue to work. _____10 for each infraction
8. Treatment for a sucking chest wound shall be completed as outlined during Patient Assessment. _____ 10
9. All life-threatening conditions shall be located and started before Detailed Physical Examination can begin. _____ 5

Detailed Physical Examination can begin after all life-threatening conditions have been located and treatment started. (Example: Uncontrollable bleeding and sucking chest wound) Environmental and Medical Emergencies can be treated anytime during Detailed Physical Examination.

10. The bystander must be shown the correct method of support. _____ 2

A bystander shall be limited to assisting the team only in the area of taking support of fractures, dislocations, or spinal injuries (including maintaining an open airway in the event of a spinal injury and Two-Person Log Roll). The bystander must be shown the correct method of support and maintaining the open airway by a team member or members after the clock is started, but before taking support.

11. Each PROCEDURE shall be performed as identified on the skill sheets. _____5
for each infraction

12. Each CRITICAL SKILL shall be performed as identified on the skill sheets. _____
1 for each infraction (not to exceed 5 discounts)

13. The team member performing the Detailed Physical Examination must state the location and physically examine each condition found. _____ 2

14. Working out of order (assessment, procedure, critical skill). _____2

Teams will systematically conduct the Detailed Physical Examination according to procedure number seven of the patient assessment/trauma skill sheet. Each area of the body shall be examined in its entirety prior to treating injuries in that area (except taking support). All injuries must be treated on the area being examined prior to moving to the next area to be examined.

However, if treatment has been started and can be completed by one team member (except injuries requiring a backboard), the other team member may continue the examination to the next area and begin treatment. (Systematically, legs are treated before the arms.)

15. Fractures shall be supported prior to bandaging injuries. Once the extremity has been assessed, fractures must be supported prior to bandaging injuries on the extremity. _____3

During the Detailed Physical Examination, except for fractures of ribs, nose, and jaw, or dislocations of the fingers, toes, or jaw, teams must physically support/stabilize fractures and dislocations as they are found. When the fracture/dislocation is on an extremity and support has been taken, the team must complete the examination on the extremity treating other injuries prior to splinting the fracture/dislocation.

16. Treatment of injury shall be at proper location (example: treating right hand rather than left hand). _____5

17. All injuries and/or conditions shall be treated (example: wound, fracture, frostbite). _____10 for each infraction

18. Not applying sling for upper extremity wound. _____1

Triangular slings are required for all wounds of upper extremities, including shoulder and armpit wounds. Slings will not be required for upper extremity burns. However, if a burn and wound and/or fracture/dislocation are present on the same upper extremity, a sling shall be applied. Slings will be applied on upper extremities with injuries after all injuries of the extremity have been treated.

19. Support of fractures and/or dislocations shall not be broken or released. _____5

When changing support, if support is broken, this discount applies. Change of support can be done as many times as the team desires provided the support is not broken.

Support the fractured or dislocated elbow in a straight position until No. 4 bandage is tied.

Suspected spinal injuries will be supported until after the fifth bandage is tied on the backboard.

20. Support for upper extremity fractures/dislocations shall be maintained until the sling is completed. Discount if support of fracture and/or dislocation is released by support person before sling is completed. _____5

21. Splints and/or back-board splints shall be padded. _____ 1

22. Tight clothing at neck, chest, and waist shall be loosened. Clothing may be loosened by patient prior to the beginning of the contest. _____1

23. Patient cannot talk, direct, or assist unless stated in the problem. _____ 5 for each infraction

24. Handling patient in such a manner that could compromise condition of the patient. _____5 for each infraction

25. Backboard splint shall be elevated at least six inches when required. _____2

26. Teams shall not pad around the head and neck of the patient, for a suspected spinal injury, before the patient is placed onto the backboard. _____ 1

27. Teams shall use square knots when tying bandages. _____1 (discount only one (1) point regardless of the number of ties that are not square knots)
28. Teams shall tuck the tails of all bandages. _____1 (discount only one (1) point regardless of the number of tails of bandages not tucked)
29. All material (except manikin) shall be placed in base area prior to stopping the clock. After completing the problem the work area shall be cleaned of ALL material (except manikin), including the infectious waste, which shall be placed in a white trash bag provided by the team. When all materials have been placed in base area, a team member shall stop the clock. The judges and First Aid team will verify the working time upon completion of the problem. _____2

INTERPRETATIONS OF SCORECARD B ARTIFICIAL VENTILATION/CARDIOPULMONARY RESUSCITATION

1. Rubber gloves shall be worn when giving AV and/or CPR. _____1
2. Determine unresponsiveness - includes statement, "Call 911" (according to Critical Skill Sheet). _____1
3. Call for help. _____1
4. Airway shall be opened. _____1
5. Proper maneuver to open airway shall be used (using head-tilt/chin-lift maneuver when jaw-thrust should be used, vice versa). _____1
6. Assess breathlessness in 3-5 seconds. _____1
7. One-way valve barrier device shall be used when ventilating manikin. _____1
8. Give initial 2 breaths. _____1
 - a) Volume shall be at least .8 liters (through .7 liter line on new manikins). _____1
9. Mouth-to-nose ventilation shall be used when required. _____1
10. Turning patient's head or body, if spinal injury exists. _____1
11. Use tongue-jaw lift, cross-finger technique, or finger sweep when required. _____1
12. Reposition head when airway obstruction is suspected. _____1
13. Give abdominal thrusts or chest thrusts when required. _____1

14. Pulse check is required prior to giving compressions. ____1
15. Assess pulse for 5-10 seconds. ____1
16. Correctly locate the carotid pulse. ____1
17. Verbalize absence of pulse. ____1

Cardiopulmonary Resuscitation

1. CPR/AV shall be given when required. ____20
2. Locate landmark for giving compressions. ____1
3. Make parallel axis with heels of hands. ____1
4. Do not allow fingers to rest on chest. ____1
5. Compressions.
 - a) Timing. 15 compressions shall be completed in 8-10 seconds. ____1
 - b) Depth. Compression depth shall be between the two lines for 60-80 pounds pressure. ____1
 - c) Number required. A total of 15 compression shall be made each cycle. ____1
 - d) Release of upstroke. The release line shall be straight. ____1
 - e) Rate. Compressions shall be made at the rate of 100 per minute. ____1
6. Release of pressure shall be made without hand leaving contact with manikin. ____1
7. Give 2 breaths between each cycle of compressions. ____1
 - a) Timing (not completing breaths and returning to compressions in 4-7 seconds (peak of last downstroke to peak of second ventilation). ____1
 - b) Volume shall be at least .8 liters (through .7 liter line on new manikins). ____1
8. Four cycles of 15 compressions and 2 breaths shall be given for each minute of CPR (point of 1st downstroke to peak of last breath). (A cycle is 15 compressions and 2 ventilations. A set is 4 cycles.) ____1
9. Assess pulse for 5-10 seconds after 1st minute of CPR. ____1
10. Assess pulse for 3-5 seconds after three minutes of CPR. ____1
11. Give 5 abdominal thrusts when airway obstruction is suspected. ____1

12. Perform CPR as stated in the problem. Too many or too few compressions can be detrimental to patient. _____1
13. Number of Rescuer/Rescuers must perform CPR as stated in the problem. Team performing One-Person CPR when Two-Person CPR is required and vice versa. _____ 3 (When problem states "Two-Rescuer CPR", two people are required to perform CPR as listed in Two-Rescuer CPR skill sheets.)
14. After pulse check is completed, rescuer shall begin with compressions, not ventilations. _____1
15. When performing 2-person CPR, rescuers shall change positions in 10 seconds or less. _____1
16. When CPR is completed, rescuer shall make final pulse check. _____1
17. When CPR is completed, rescuer shall state that patient has a pulse. _____1

Artificial Ventilation

1. Not giving artificial ventilation. _____ 20
2. 10-12 breaths shall be given in each 58-62-second period. _____1
3. Volume shall be at least .8 liters (through .7 liter line on new manikins)._____1
4. When artificial ventilation is completed, rescuer shall check for return of breathing and pulse. _____1
5. When artificial ventilation is completed, rescuer shall state that patient is breathing and has a pulse. _____1

PATIENT ASSESSMENT TRAUMA

PROCEDURES	CRITICAL SKILL
1. SCENE SAFETY	A. Observe area to ensure safety _____
2. MECHANISM OF INJURY	A. Determine causes of injury, if possible _____ B. Ask patient what happened _____ C. Have someone call for assistance _____
3. INITIAL ASSESSMENT	A. Verbalize general impression of the patient _____ B. Determine responsiveness/level of consciousness _____ C. Determine chief complaint/apparent life threats _____
4. ASSESS AIRWAY AND BREATHING	A. Correctly execute head-tilt/chin-lift or jaw thrust maneuver, depending on the presence of C-spine injuries _____ B. Look, listen, and feel _____ C. Determine presence of breathing in 3-5 seconds _____
5. ASSESS CIRCULATION	A. Check carotid pulse _____ B. If absent, begin CPR _____ C. If present, control arterial/profuse bleeding _____ D. If present, treat sucking chest wound _____
6. DETERMINE PRIORITY OF PATIENT	A. Teams must make statement to judge, "Will transport as soon as possible" _____ B. Teams must make statement to judge, "Removing clothing and exposing and cleaning wound surface" _____

7. DETAILED PHYSICAL EXAMINATION	ENVIRONMENTAL AND MEDICAL EMERGENCIES CAN BE TREATED ANY TIME DURING DETAILED PHYSICAL EXAMINATION	
ASSESS:		
(a) HEAD	A. Inspect and touch the scalp and ears B. Assess the eyes C. Assess the facial areas including oral and nasal areas	_____ _____ _____
(b) NECK	A. Inspect and touch the neck B. Inspect for medical ID	_____ _____
(c) CHEST	A. Inspect for injury by touch	_____
(d) ABDOMEN	A. Inspect for injury by touch (Verbally state inspection of crotch and buttocks areas)	_____
(e) PELVIS	A. Inspect for injury by touch	_____
(f) LEGS	A. Inspect for injury by touch (Verbally state inspection of groin area) B. Check for paralysis C. Check for medical ID bracelet	_____ _____ _____
(g) ARMS	A. Inspect for injury by touch B. Check for paralysis C. Check for medical ID bracelet	_____ _____ _____
(h) BACK SURFACES	A. Inspect for injury by touch	_____

ONE-PERSON CPR (MANIKIN ONLY)
AMERICAN HEART ASSOCIATION GUIDELINES

PROCEDURES	CRITICAL SKILL
1. ESTABLISH UNRESPONSIVENESS	A. Tap or gently shake shoulders _____ B. Shout, "are you OK?" _____ C. Determine unconsciousness without compromising C-spine injury _____ D. Say aloud, "Call 911" _____
2. ESTABLISH AIRWAY	A. Kneel at the patient's side near the head _____ B. Correctly execute head-tilt/chin-lift or jaw thrust maneuver depending on the presence of C-spine injuries _____
3. MONITOR PATIENT FOR BREATHING	A. Look, listen, and feel for breathing _____ B. Determine the absence of breathing in 3-5 seconds _____
4. VENTILATION PATIENT	A. Place barrier device (pocket mask with one-way valve) on manikin _____ B. Give 2 slow breaths (about 2 seconds each) _____ C. Each breath - minimum of .8 liters (through .7 liter line on new manikins) _____
5. PULSE CHECK	A. Correctly locate the carotid pulse - on the side of the rescuer, locate the patient's windpipe with your index and middle fingers and slide your fingers in the groove between the windpipe and muscle in the neck _____ B. Check for presence of carotid pulse for 5 to 10 seconds _____ C. Verbalize absence of pulse _____
6. POSITION FOR COMPRESSIONS	A. Place your finger on lower margin of the patient's rib cage nearest you _____ B. Slide your fingers up the rib cage to the notch where the ribs meet the lower sternum (center of chest) _____ C. Locate the compression point on the breastbone between the nipples _____ D. Place the heel of one hand on lower half of sternum and the other hand on top of the first so hands are parallel _____ E. Do not rest fingers on the chest _____ F. Keep heel of your hand on chest during and between compressions _____

7. DELIVER CARDIAC COMPRESSION	A. Give 15 compressions _____ B. Compressions are at the rate of 100 per minute (15 compressions in 8-10 seconds) _____ C. Downstroke for compression must be on or between compression lines _____ D. Return to baseline on upstroke of compression _____
8. VENTILATIONS BETWEEN COMPRESSIONS	A. Give 2 slow breaths (about 2 seconds each) _____ B. Each breath - minimum of .8 liters (through .7 liter line on new manikins) _____ C. Complete breaths and return to compressions in 4-7 seconds (This will be measured from the peak of last downstroke to peak of second breath of the next cycle.) _____
9. CONTINUE CPR FOR TIME STATED IN PROBLEM	A. Provide 4 cycles of 15 chest compressions and 2 rescue breaths (about 1 minute) _____ B. To determine signs of circulation, stop chest compressions for 5-10 seconds after the first minute of CPR _____ C. Rescuer opens airway and looks, listens, and feels for adequate breathing or coughing _____ D. Rescuer checks for a carotid pulse _____ E. If no signs of circulation are detected, continue chest compressions and breaths and check for signs of circulation every three minutes _____ F. A final pulse check (3-5 seconds) will be required at the end of the last set of CPR _____ G. A maximum of 10 seconds will be allowed to complete ventilations and required pulse checks between sets (this will be measured from the peak of the last breath and to the peak of the first downstroke of the next beginning set) _____
10. CHECK FOR RETURN OF PULSE	A. After providing required CPR (outlined in problem), check for return of pulse _____ B. State "Patient has a pulse." _____

TWO-RESCUER CPR (NO SPINAL INJURY - MANIKIN ONLY)
AMERICAN HEART ASSOCIATION GUIDELINES

PROCEDURES	CRITICAL SKILL
1. RESCUER 1 - ESTABLISH UNRESPONSIVENESS	A. Tap or gently shake shoulders _____ B. Shout, "are you OK?" _____ C. Determine unconsciousness without compromising C-spine injury _____ D. Say aloud, "Call 911" _____
2. RESCUER 1 - ESTABLISH AIRWAY	A. Kneel at the patient's side near the head _____ B. Correctly execute head-tilt/chin-lift maneuver _____
3. RESCUER 1 - MONITOR PATIENT FOR BREATHING	A. Look, listen, and feel for breathing _____ B. Determine the absence of breathing in 3-5 seconds _____
4. RESCUER 1 - VENTILATE PATIENT	A. Place barrier device (pocket mask with one-way valve) on manikin _____ B. Give 2 slow breaths (about 2 seconds each) _____ C. Each breath - minimum of .8 liters (through .7 liter line on new manikins) _____
5. RESCUER 1 - CHECK FOR CAROTID PULSE	A. Correctly locate the carotid pulse - on the side of the rescuer, locate the patient's windpipe with your index and middle fingers and slide your fingers in the groove between the windpipe and the muscle in the neck _____ B. Check for presence of carotid pulse for 5 to 10 seconds _____ C. Verbalize absence of pulse _____
6. RESCUER 2 - POSITION FOR COMPRESSIONS	A. Place your finger on lower margin of the patient's rib cage nearest you _____ B. Slide your fingers up the rib cage to the notch where the ribs meet the lower sternum (center of chest) _____ C. Locate the compression point on the breastbone between the nipples _____ D. Place the heel of one hand on lower half of sternum and the other hand on top of the first so hands are parallel _____ E. Do not rest fingers on the chest _____ F. Keep heel of your hand on chest during and between compressions _____

7. RESCUER 2 - DELIVER CARDIAC COMPRESSION	A. Give 15 compressions _____ B. Compressions are at the rate of 100 per minute (15 compressions in 8-10 seconds) _____ C. Downstroke for compression must be on or between compression lines _____ D. Return to baseline on upstroke of compression _____
8. RESCUER 1 - VENTILATIONS BETWEEN COMPRESSIONS	A. Give 2 slow breaths (about 2 seconds each) _____ B. Each breath - minimum of .8 liters (through .7 liter line on new manikins) _____ C. Complete breaths and return to compressions in 4-7 seconds (This will be measured from the peak of last downstroke to peak of second breath of the next cycle.) _____
9. CONTINUE CPR FOR TIME STATED IN PROBLEM	A. Provide 4 cycles of 15 chest compressions and 2 rescue breaths (about 1 minute) _____ B. To determine signs of circulation, stop chest compressions for 5-10 seconds after the first minute of CPR _____ C. Rescuer at patient's head maintains airway and looks, listens, and feels for adequate breathing or coughing _____ D. The rescuer at the patient's head shall feel for a carotid pulse _____ E. If no signs of circulation are detected, continue chest compressions and breaths and check for signs of circulation every three minutes _____ F. A final pulse check (3-5 seconds) will be required at the end of the last set of CPR _____ G. A maximum of 10 seconds will be allowed to complete ventilations and required pulse checks between sets (this will be measured from the peak of the last breath and to the peak of the first downstroke of the next beginning set) _____
10. CHANGING RESCUERS	A. Change of rescuers shall be made in 10 seconds or less and will be completed as outlined in the problem _____
11. CHECK FOR RETURN OF PULSE	A. After providing required CPR (outlined in problem), check for return of pulse _____ B. State "Patient has a pulse." _____

TWO-RESCUER CPR (WITH SPINAL INJURY - MANIKIN ONLY)
AMERICAN HEART ASSOCIATION GUIDELINES

PROCEDURES	CRITICAL SKILL
1. RESCUER 1 - ESTABLISH UNRESPONSIVENESS	A. Tap or gently shake shoulders _____ B. Shout, "are you OK?" _____ C. Determine unconsciousness without compromising C-spine injury _____ D. Say aloud, "Call 911" _____
2. RESCUER 2 - ESTABLISH AIRWAY	A. Kneel at the patient's head _____ B. Correctly execute jaw thrust maneuver _____
3. RESCUER 1 - MONITOR PATIENT FOR BREATHING	A. Look, listen, and feel for breathing _____ B. Determine the absence of breathing in 3-5 seconds _____
4. RESCUER 1 - VENTILATE PATIENT	A. Place barrier device (pocket mask with one-way valve) on manikin (OPTION 1: When spinal injury is present, Rescuer No. 2 can hold barrier device on manikin after Rescuer No. 1 correctly places the device over the mouth and nose.) (OPTION 2: Rescuer 1 can place the device on the manikin each time patient is ventilated) _____ B. Give 2 slow breaths (about 2 seconds each) C. Each breath - minimum of .8 liters (through .7 liter line on new manikins) _____
5. RESCUER 1 - CHECK FOR CAROTID PULSE	A. Correctly locate the carotid pulse - on the side of the rescuer, locate the patient's windpipe with your index and middle fingers and slide your fingers in the groove between the windpipe and the muscle in the neck _____ B. Check for presence of carotid pulse for 5 to 10 seconds _____ C. Verbalize absence of pulse _____

6. RESCUER 1 - POSITION FOR COMPRESSIONS	A. Place your finger on lower margin of the patient's rib cage nearest you _____ B. Slide your fingers up the rib cage to the notch where the ribs meet the lower sternum (center of chest) _____ C. Locate the compression point on the breastbone between the nipples _____ D. Place the heel of one hand on lower half of sternum and the other hand on top of the first so hands are parallel _____ E. Do not rest fingers on the chest _____ F. Keep heel of your hand on chest during and between compressions _____
7. RESCUER 1 - DELIVER CARDIAC COMPRESSION	A. Give 15 compressions _____ B. Compressions are at the rate of 100 per minute (15 compressions in 8-10 seconds) _____ C. Downstroke for compression must be on or between compression lines _____ D. Return to baseline on upstroke of compression _____
8. RESCUER 2 - VENTILATIONS BETWEEN COMPRESSIONS	A. Give 2 slow breaths (about 2 seconds each) _____ B. Each breath - minimum of .8 liters (through .7 liter line on new manikins) _____ C. Complete breaths and return to compressions in 4-7 seconds (This will be measured from the peak of last downstroke to peak of second breath of the next cycle.) _____
9. CONTINUE CPR FOR TIME STATED IN PROBLEM	A. Provide 4 cycles of 15 chest compressions and 2 rescue breaths (about 1 minute) _____ B. To determine signs of circulation, stop chest compressions for 10 seconds after the first minute of CPR _____ C. Rescuer at patient's head maintains airway and looks, listens, and feels for adequate breathing or coughing _____ D. The rescuer giving compressions shall feel for a carotid pulse _____ E. If no signs of circulation are detected, continue chest compressions and breaths and check for signs of circulation every three minutes _____ F. A maximum of 10 seconds will be allowed to complete ventilations and required pulse checks between sets (this will be measured from the peak of the last breath and to the peak of the first downstroke of the next beginning set) _____

10. CHANGING RESCUERS	A. Change of rescuers shall be made in 10 seconds or less and will be completed as outlined in problem _____
11. CHECK FOR RETURN OF PULSE	A. A final pulse check (3-5 seconds) will be required at the end of the last set of CPR _____ B. State "Patient has a pulse." _____

MOUTH-TO-MASK RESUSCITATION

PROCEDURES	CRITICAL SKILL
1. ESTABLISH UNRESPONSIVENESS	A. Tap or gently shake shoulders _____ B. Shout, "Are you OK?" _____ C. Determine unconsciousness without compromising C-spine injury _____ D. Say aloud, "Call 911" _____
2. ESTABLISH AIRWAY	A. Correctly execute head-tilt/chin-lift or jaw thrust maneuver depending on the presence of C-spine injuries _____
3. MONITOR PATIENT FOR BREATHING	A. Look, listen, and feel for breathing _____ B. Determine the absence of breathing in 3-5 seconds _____
4. VENTILATE PATIENT	A. Place barrier device (pocket mask with one-way valve) on manikin _____ B. Ventilate patient 2 times at 1.5-2 second intervals each - minimum of .8 liters (through .7 liter line on new manikins) _____
5. CHECK FOR CAROTID PULSE	A. Correctly locate the carotid pulse (on the side of the rescuer) _____ B. Check for presence of carotid pulse for 5 to 10 seconds _____ C. Verbalize presence of pulse _____
6. VENTILATE PATIENT	A. Place barrier device (pocket mask with one-way valve on manikin _____ B. Ventilate patient 10 to 12 times per minute. Each ventilation will be provided at a minimum of .8 liters (through .7 liter line on new manikins) _____
7. CHECK FOR RETURN OF BREATHING AND PULSE	A. After providing the required number of breaths (outlined in problem), check for return of breathing and carotid pulse for 3 to 5 seconds _____ B. State "Patient is breathing and has a pulse" _____

**AIRWAY OBSTRUCTION (MANIKIN ONLY)
(UNCONSCIOUS PATIENT - UNWITNESSED)**

PROCEDURES	CRITICAL SKILL
1. ESTABLISH UNRESPONSIVENESS	A. Tap or gently shake shoulders _____ B. Shout, "Are you OK?" _____ C. Determine unconsciousness _____ D. Say aloud, "Call 911" _____
2. ESTABLISH AIRWAY	A. Correctly execute head-tilt/chin-lift or jaw thrust maneuver depending on the presence of C-spine injuries _____
3. MONITOR PATIENT FOR BREATHING	A. Look, listen, and feel for breathing _____ B. Determine the absence of breathing in 3-5 seconds _____
4. ATTEMPT VENTILATION	A. Place barrier device on manikin _____ B. Attempt to give slow full breath _____ C. Identify there is an obstruction _____
5. CHECK POSITIONING	A. Reestablish airway using correct method and procedure _____ B. Identify continued presence of the obstruction by re-attempting to ventilate _____
6. DELIVER ABDOMINAL THRUST	A. Straddle the patient's thighs _____ B. Place heel of one hand against the patient's abdomen, midline slightly above the navel and well below xiphoid _____ C. Place second hand on top of first _____ D. Deliver quick upward thrust _____ E. Each thrust administered with intention of relieving obstruction _____ F. Deliver 5 thrusts _____ G. Follow with opening mouth and finger sweep _____ H. Attempt artificial ventilation _____ I. Repeat the procedures until obstruction is cleared _____

ARTERIAL/PROFUSE BLEEDING

PROCEDURES	CRITICAL SKILL
1. DIRECT PRESSURE AND ELEVATION	A. Apply sterile dressing to wound _____ B. Apply direct pressure _____ C. Tie pressure bandage in place _____
2. PRESSURE POINTS	A. Apply pressure to appropriate pressure point and notify judge verbally that bleeding is controlled _____
3. DRESSING	A. Apply cover bandage _____

SUCKING CHEST WOUND

PROCEDURES	CRITICAL SKILL
1. IMMEDIATELY COVER WOUND	A. Place nonporous material (gloved hand, plastic wrap, etc.) over wound _____
2. COMPRESS FOR WOUND ON SIDE OF CHEST OR WOUND IN CENTER CHEST	<p>A. If wound is on side of chest (left or right of center), place a compress over the nonporous material and tie on opposite side OR _____</p> <p>B. If wound is in center of chest over the nonporous material, place a compress bandage for Chest or Back between Shoulder Blades as outlined in the 1998 First Aid Book. _____</p>
3. COVER DRESSING CANNOT BE APPLIED UNTIL DETAILED PHYSICAL EXAMINATION	<p>Apply cover dressing as for Chest or Back between Shoulder Blades during Detailed Physical Examination</p> <p>A. Place the center of the base of a triangular bandage at the lower part of the neck _____</p> <p>B. Allow the apex to drop over the chest _____</p> <p>C. Carry the ends over the shoulders and under the armpits to the center of the chest _____</p> <p>D. Tie with the apex below the knot _____</p> <p>E. Turn the apex up and tuck it over the knot _____</p>

BANDAGING OPEN WOUNDS

PROCEDURES	CRITICAL SKILL
1. APPLY DRESSING/BANDAGE AS OUTLINED IN THE FIRST AID BOOK FOR SELECTED INJURY	THIS SECTION OF THE CRITICAL SKILLS WILL OUTLINE THE BANDAGING PROCEDURES FOR THE WOUNDS SELECTED FOR THE CONTEST FROM THE REVISED 1998 MSHA FIRST AID BOOK
2. BANDAGING PRINCIPLES	A. Cover entire wound _____ B. Do not bandage too tightly _____ C. Do not bandage too loosely _____ D. Do not leave loose ends _____ E. Cover all edges of dressing _____ F. Do not cover the tips of fingers and toes when appropriate _____

CARE OF FRACTURES AND DISLOCATIONS

PROCEDURES	CRITICAL SKILL
1. GENERAL PRINCIPLES	<p>A. Take support immediately (if required) upon discovery of fracture/dislocation _____</p> <p>B. Do not attempt to push bones back through open wound _____</p> <p>C. Do not attempt to straighten fracture/dislocation _____</p> <p>D. All injuries on the extremity shall be dressed and bandaged before work on splinting is begun _____</p>
2. APPLY SPLINT AS OUTLINED IN 1998 MSHA FIRST AID MANUAL FOR SELECTED INJURY	A. THIS SECTION OF THE CRITICAL SKILLS WILL OUTLINE THE CARE OF FRACTURES/DISLOCATIONS OF INJURIES SELECTED FOR THE CONTEST FROM THE REVISED 1998 MSHA FIRST AID BOOK.

TWO-PERSON LOG ROLL

PROCEDURES	CRITICAL SKILL
1. STABILIZE HEAD	A. Stabilize the head and neck _____
2. PREPARING THE PATIENT	A. Place board parallel to the patient _____ B. Kneel at the patient's shoulders opposite the board leaving room to roll the patient toward knees _____ C. Raise the patient's arm, if not injured (the one closer to the rescuer) above the patient's head _____
3. PREPARING THE RESCUER	D. Grasp the patient at the shoulder and pelvis area _____ E. Give instructions to bystander, if used to support _____
4. ROLLING THE PATIENT	A. While stabilizing the head, roll the patient toward the rescuer by pulling steadily and evenly at the shoulder and pelvis areas _____ B. The head and neck should remain on the same plane as the torso _____ C. Maintain stability by holding patient with one hand and placing board with other _____ D. Roll the body as a unit onto the board (board may be slanted or flat) _____ E. Place the arm alongside the body _____
5. SECURING PATIENT TO BOARD	A. Secure patient's head to backboard when required _____ B. If suspected spinal injury exists, maintain support of the patient's head until the fifth bandage is tied on the back board. Other fractures and dislocations requiring a back board shall be supported as outlined in the 1998 First Aid Book until back board ties are completed. _____ C. Tie the wrists together unless injury prevents _____